



PCT10

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/10/030,019

DATE: 01/22/2002
 TIME: 10:29:45

Input Set : A:\candidal.app.txt
 Output Set: N:\CRF3\01182002\J030019.raw

**Does Not Comply
 Corrected Diskette Needed**

3 <110> APPLICANT: Contreras, Roland
 4 DeBacker, Marianne
 5 Luyten, Walter
 6 Lanaerts, Isabelle
 7 Nelissen, Bart
 8 Reekmans, Rieka
 10 <120> TITLE OF INVENTION: Cell death related drug targets in yeast and fungi
 12 <130> FILE REFERENCE: JAN-002-PCT
 14 <140> CURRENT APPLICATION NUMBER: US/10/030,019
 15 <141> CURRENT FILING DATE: 2001-12-26
 17 <150> PRIOR APPLICATION NUMBER: 99870141.1
 18 <151> PRIOR FILING DATE: 1999-07-01
 20 <160> NUMBER OF SEQ ID NOS: 484
 22 <170> SOFTWARE: PatentIn Ver. 2.1

ERRORED SEQUENCES

21493 <210> SEQ ID NO: 375
 21494 <211> LENGTH: 1499
 21495 <212> TYPE: DNA
 21496 <213> ORGANISM: Candida albicans
 21498 <400> SEQUENCE: 375
 21499 tttcttcctc aacttgctca aatgtctttg aaagtgaagg cttacttttt tggtttcggt 60
 21500 taggtggcat caaggtaaa gaggaggttt tggatatatt aggttttttg cttatttcc 120
 21501 tttttgagta gatataacag aactacccaa agtgagccca catctgttaa tcttgaaaag 180
 21502 caaaattgag aaaacatttt atgcaagtcg tgtactgggt atattcttgg tcaatttgct 240
 E--> 21503 cacttttgta gaataactg taatgtagcc gacgtgggtt gaataata tatttaagta 300
 21504 tatagaatca ggtcaatata aaatgttttg aatataacaa aatgtttcaa tgaataactga 360
 21505 tgggttaagg attataaact aaactgagta gtgcttttgt tcttaaaaaa cccatcggtg 420
 21506 tggtaacgtc aggagacgcg gacatcaaat ggaattocaa caatcagttc cgaatttat 480
 21507 tacccttgaa acttaactta atgaaagagc cttccatcac tactacottt gttgaggtta 540
 21508 cagacaaact tctacaaaag cctccgtgca ggggtttttt caagaatgag tatgagcagc 600
 21509 cctccggcag tgtcaaatata agagggcatgg gacacttggt tggccagttc atagatgtgg 660
 21510 ccagaaaaact tggcaaatcg aacgtagcag ttttttcgtc atctggtggt aatgcaggat 720
 21511 tagcagctcg ttaatgcagc cagttttttg gagtatcggt cactgtgggt ttgcctgaaa 780
 21512 gttcgaagcc aactgttata gaaaagttag aatccttggt tgcagatgto attattcatg 840
 21513 ggaacattg gggagagccg gataactatt taactgattt tgtattataa aatotttgaca 900
 21514 aaacagtcta tccggtctat tgtcaccttt ttgatgacc attgtttgtg gagggtcata 960
 21515 gtaagatcat caaggaaatc atcgatcaaa agcaattacc caactttgat aaagttaagg 1020
 21516 gggtcatttg ttcgtagtag ggggggtggc tatacaacgg aatagttgaa ggtttggaaa 1080
 21517 atcataagga gataccagtg ttggcaattg aaactaaaca agcgccacg tttcacgagg 1140
 21518 cggtcaaaaga aggtaaagtt gttcatttac aaaaagtgc aactttggcc acttcttttg 1200

see item 9 on Enol summary sheet

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/030,019

DATE: 01/22/2002
TIME: 10:29:49

Input Set : A:\candidal.app.txt
Output Set: N:\CRF3\01182002\J030019.raw

21519 cttcgccgta cctttcttcc aaggcattag caaactatat tgagcgctct acagttcttg 1260
21520 ctgaaattga tgacttggac gctgttaaag gtgtgtgtga tgtatcacac catttcggat 1320
21521 atatggttga gctctgcatgt ggtgcacccg ttgcatcagt gatgcacagg caagatttat 1380
21522 tgaataaatt tggtaacatta agtcacagatg atattatcat tgttgtcata ttgtgtggat 1440
21523 cggctatcaa caagtatat atagacgaat atagaagttt attagaaaaa gactcttga 1499
22363 <210> SEQ ID NO: 389
22364 <211> LENGTH: 4619
22365 <212> TYPE: DNA
22366 <213> ORGANISM: Candida albicans
22368 <400> SEQUENCE: 389
P3
22369 caacgacaac aacaataaga agaattcttt ccagatattg taaaatcctt atattaaatg 60
22370 ttaatagaag cctaaaaaatt gcttgaattg atagatttgc tgattctttt gctagaaaac 120
22371 cgcgttatat tacttatctc ttctgtaatt tcttgatctc tcttgtaact acacacgcct 180
22372 ttgtttttct ttctcgctcc cctctgccaac cccacagtta ttgttttgcg tgcgcagctg 240
22373 ctgccaataa aaaaaattga gttctctctc tcttttttac aacagagaag agacaagaaa 300
22374 aaaaaaaatc atcaaaatta agattcaagc tttttttttt agttttttta acaaaaaaat 360
22375 tgaattacaa atccttgaa ttacaacctc atattcagct ctataacta atattataa 420
22376 caataaattt ttgaatttat ctataaacca ctgatatttg attttatctt tttttttt 480
22377 ttgtttccca taattgtgtc atgctgaca atagagaaga atagctcag atactctctg 540
22378 atgcaaaagg aatttgtact acaaatgaaa ttgaagcaac agatttcagaa catcacaaac 600
22379 atgtcgataa tgaactccct caagggtgaat ccaatgaaca acaggagat gactcaaatg 660
22380 acaaccttgc atccaaacgt caattaatca atgatttatt acacaaatg atcttttga 720
22381 aaggaacaga acgttacatc atccctcaaa atttcttaca tgaatttttg aattttacca 780
22382 tcgataattt tagtgatttg aaagatcaac ttggtccatg tgatttccac tcattactta 840
22383 atgaacaagg taatttatat cccgagaatg aagaaccagt cactttttgt catgtatcgc 900
22384 cagaagtatt tcaacatttg ggtgaatggt ttggaatatt gggccaacca atattatag 960
22385 ctatcattat taatccagac accaaaagaa acagatttga aagattcccg ccattatttt 1020
22386 ggggttaca atcttgtaa aagacgcaac caacatactt ggcacacgtg cataatggaa 1080
22387 gcaacaccaa tcatcatcac catggctatc acgattcacc aataccagta ttgctttcca 1140
22388 acaacagcag ttttcataga ttaatggatg ttatcgttta ttatcgttta aaagaccacc 1200
22389 gaaaatcgac gaagagattt aggatttggg ttattgtccc acaagataaa ggcttaacgt 1260
22390 atttgatttc atacaaaact ttatgtttg atatctccaa aaaaactctg gtttccacca 1320
22391 atatgcttga ggaatgcttg aaagatcacg gtaattgtgc cagtctctat aatataattg 1380
22392 tagaagcaaa agaaaaacat caaacagaat ttctatttga tcaatttatt ttaactcatt 1440
22393 ctaacgcata tgaagaagta tcacagggtg gtggacacct tggatatcca acatggggga 1500
22394 acacatgttta tatgaactgc gctttacaat gtttattaca cgttccctga atcaactatt 1560
22395 atttttttta caacatttat aaaaaagaat tgaattttga caacccttg ggaatcatg 1620
22396 gagatgttgc caatgcattt ggttcaactt taaaacaagc atttgatcac gtgaaaaata 1680
22397 gttctagtat atctctcga gaattcaaat caactattgg gagatatccc tgcagtgttt 1740
22398 ctgggtatct tcaaacagat tctcaagagt tgttgagttg gctattagat gctcttcag 1800
22399 aggatttgaa tagaattcac caaaaacctt attgtgaaaa gcccgaaagt acatgagacg 1860
22400 aaattgatga cccccagcgc atcaccaaac ttgccaatac ttgtcggaat caacataagg 1920
22401 caagaaacga ctgggtgata attgatttat ttaactgggt gatatcaatt accttaactc 1980
22402 gtcttgattg tggtagaata tccataactt ttgatccctt ttgatccctt acattaccct 2040
22403 taccatccag taagaattgg tatcacacat ttacaattgt tgaattttcc aatcaaggcg 2100
22404 ttatactgaa agggataatg aagttggaag ttgagttgaa taaaaatcgc attttcgatg 2160
22405 atttaactga ctatttgagt aatttcttga atgttccatc taactgagtg ttgcttatg 2220
22406 agatttttca aaatgcaatc tatagtgaac tccaattaga tccacaagaa caacagtttt 2280
22407 taccatccag tgatattatc agagatacac atgatgttat agtgcacatt gttccacata 2340

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/030,019

DATE: 01/22/2002
TIME: 10:29:49

Input Set : A:\candida1.app.txt

Output Set: N:\CRF3\01182002\J030019.raw

E-->

```

22408 accctgccgt tgacatcatt gtgccagtg tcaatgccgt tgaagatgct gatagttoat 2400
22409 atcaaatgggt taattttttt ggaatcccat tatttgtggg gatgaataaa gaagtgcgatg 2460
22410 tcaatagtttt tggttttatt agaaaataat tattagaatac agttttcttta ttgagtaaaa 2520
22411 ttgattgtatt tgatgaatat gaaaaataaa aaagggagtaa tgaagatttac gttgaaaaag 2580
22412 tattttacaaa aaactcggat ttccctgcac tgtoacagccc attagaaaacc tccgattgtg 2640
22413 aaaaaaaacaa caataatact agcgacaacg acgacgatga ggatctcgac aacgatggaag 2700
22414 gctatgatgat tgaagtgtct ttggctaaac cataccttgg agctaattttt gggttcaaaa 2760
22415 tcatgtatgt tcatgactat agccctaaat tgaattctaa ccttcgtgaa aggtacaact 2820
22416 atgaccaaac aaccaaatcc aaacaaacag agagagttaa taatgttctc acacacaaac 2880
22417 ctacttttag cgatttcaaa cctttatcgg accaattatc agaattcaaaa cgcaactatt 2940
22418 attttttatc tgattataaa agatggatg atgagatgga ccaattgggt gaggaagtga 3000
22419 accaaaaattt ggcagagcaa tgagagcgga gatcatcggg gtcagaaaaat agtagtagag 3060
22420 cactgggaaga acaagatgga ttgtatttaa taataaaaga ggatactctc aagcaacaat 3120
22421 caactgtacc tgctgctgct gaaacgggtac ctccaccatt acctgttaga aataatactg 3180
22422 gagtttcaat ccgctcaact gatgaagaaa cagaaaagtga acgctaatttg ggaagtgttg 3240
22423 ttgattcaac atcaaaattcg cgttgcctc caccattctac atattccgaa tcaacaaaa 3300
22424 cttcgaattg aaactccctc atggaaagta actttgaaag ctcttcagca gaactgaatt 3360
22425 ctggtacaac attgatatac aaggacacag ttttgttatg tgattgggat aaggaaattt 3420
22426 atcaaaaatg ctttgggtat aaagaattac aagcatggga aaacatactg aatttaccga 3480
22427 atccagaatt ggagaaatag agagctcatt tgaagaaga aagaaaagct aaaattacat 3540
22428 tatctgattg tcttaagagt ttcagtacct ctgaaaattt aggtgaacat gatttttgt 3600
22429 attgtccagc ttgtactgaa cataaacgtg ccacaagagc aatcccaatt tggccaacgg 3660
22430 gtgatatact cactatctat ttgaaaagat ttcatagtgc tcgtgcattt agtgataaga 3720
22431 ttgatgtttt ggttgatttc ccaattgaa gtttagatat aagttcgtat gttgccaata 3780
22432 ctgattgagc acctgaagat tgtttatac acttgattgc cgttgataat cattatggtg 3840
22433 ggttagggag tggctattac actgcctcgg taaagaattt cagagatgat aaatggtatt 3900
22434 atttttaata tagtcgagct actgaaatta ataactctca agaagtcgta gctaattctg 3960
22435 cgtacctttt attttaccgt cgaagaagtt cgaaggagac tggtattttg ggaggagaaa 4020
22436 actttatoga cttgcttcaa aaaggtcgag aggaatactc tgtagagttt caaaaagaaa 4080
22437 gattgtgctt tcaaaatggt ggccaaatag tcaatacgtc tgccaaaaat gaacaagata 4140
22438 taattgataa agaaacagag aaacagaaaag aggaacaaga acaggaaacg gaacaggaa 4200
22439 aggaacagg acaagagcaa gagcaagagc cagttcaaga gccagatcaa gaacaagagc 4260
22440 cagatcaaga gccagatcaa gatcaagatc aagagccaga tcaagagcca gatcaagatc 4320
22441 aagagcagaa tgaacaata aaaaaatcta gaccattcga tgaactcaaa coatcaacta 4380
22442 gtgaaacaaa taaccaacaa caaacaactc agttcaactt tgatgatgaa gataatgatt 4440
22443 acgattatga agcagaagta gaagattcca atattcgcaa acaaaagatta ctttcaaaag 4500
22444 aaaaataacg caataaattg tgcataatta aaagcaatgg tcgccaaagg gtoacttcat 4560
22445 caccagtacc aattgaaact gatggtgaca ctgatgtaac tgattccaat tcaacatag 4619
22448 <210> SEQ ID NO: 390
22449 <211> LENGTH: 1372
22450 <212> TYPE: PRT
22451 <213> ORGANISM: Candida albicans
22453 <400> SEQUENCE: 390
22454 Met Pro Asp Asn Ile Glu Asp Arg Ser Glu Ile Pro Ser Asp Ala Lys
22455 1 5 10 15
22457 Glu Ile Val Thr Thr Asn Glu Ile Glu Ala Thr Asp Ser Glu His Thr
22458 20 25 30
22460 Thr Asn Val Asp Asn Glu Leu Pro Gln Gly Glu Ser Asn Glu Gln Thr
22461 35 40 45

```

Item 9

P.6

RAW SEQUENCE LISTING

DATE: 01/22/2002

PATENT APPLICATION: US/10/030,019

TIME: 10:29:49

Input Set : A:\candidal.app.txt

Output Set: N:\CRF3\01182002\J030019.raw

```

22463 Gly Asp Asp Ser Asn Asp Asn Leu Ala Ser Lys Arg Gln Leu Ile Asn
22464      50                      55                      60
22466 Asp Leu Leu His Asn Asp His Phe Glu Glu Gly Thr Glu Arg Tyr Ile
22467      65                      70                      75                      80
22469 Ile Pro Gln Asn Phe Leu His Glu Phe Leu Asn Leu Pro Ile Asp Asn
22470      85                      90                      95
22472 Phe Ser Asp Leu Lys Asp Gln Leu Gly Pro Ile Asp Phe His Ser Leu
22473      100                     105                     110
22475 Leu Asn Glu Gln Gly Asn Leu Tyr Pro Glu Asn Glu Glu Pro Val Thr
22476      115                     120                     125
22478 Phe Cys His Val Ser Pro Glu Val Phe Gln His Leu Gly Glu Trp Phe
22479      130                     135                     140
22481 Gly Ile Leu Gly Gln Pro Ile Ile Arg Ala Ile Ile Ile Asn Pro Asp
22482      145                     150                     155                     160
22484 Thr Lys Glu Lys Gln Ile Glu Arg Phe Pro Pro Leu Phe Trp Val His
22485      165                     170                     175
22487 Gln Leu Gly Lys Lys Thr Gln Pro Thr Tyr Leu Arg His Arg His Asn
22488      180                     185                     190
22490 Gly Ser Asn His Asn His His His Gly His His Asp Ser Pro Ile
22491      195                     200                     205
22493 Pro Val Leu Leu Ser Lys Thr Ser Thr Phe His Arg Leu Met Asp Val
22494      210                     215                     220
22496 Ile Arg Tyr Asn Val Leu Lys Ala Pro Arg Lys Ser Thr Lys Asp Phe
22497      225                     230                     235                     240
22499 Arg Ile Trp Phe Ile Val Pro Gln Asp Lys Gly Leu Gln Tyr Leu Ile
22500      245                     250                     255
22502 Ser Ile Gln Thr Thr Phe Met Phe Asp Ile Ser Lys Lys Thr Leu Val Ser
22503      260                     265                     270
22505 Pro Asn Met Leu Glu Asp Ala Leu Lys Asp His Gly Ile Val Ala Ser
22506      275                     280                     285
22508 Ser Tyr Asn Ile Met Val Glu Ala Lys Glu Lys His Gln Thr Glu Phe
22509      290                     295                     300
22511 Pro Ile Asp Gln Phe Ile Leu Ser His Ser Asn Ala Tyr Glu Glu Val
22512      305                     310                     315                     320
22514 Ser Gln Gly Gly Gly His Leu Gly Leu Ser Asn Met Gly Asn Thr Cys
22515      325                     330                     335
22517 Tyr Met Asn Ser Ala Leu Gln Cys Leu Leu His Val Pro Glu Ile Asn
22518      340                     345                     350
22520 Tyr Tyr Phe Tyr Asn Ile Tyr Lys Lys Glu Leu Asn Phe Asp Asn
22521      355                     360                     365
22523 Pro Leu Gly Tyr His Gly Asp Val Ala Asn Ala Phe Gly Ser Leu Leu
22524      370                     375                     380
22526 Lys Gln Ala Phe Asp His Val Lys Asn Ser Ser Ser Ile Ser Pro Arg
22527      385                     390                     395                     400
22529 Glu Phe Lys Ser Thr Ile Gly Arg Tyr Ser Ser Met Phe Ser Gly Tyr
22530      405                     410                     415
22532 Leu Gln Gln Asp Ser Gln Glu Leu Leu Ser Trp Leu Leu Asp Ala Leu
22533      420                     425                     430
22535 His Glu Asp Leu Asn Arg Ile His Gln Lys Pro Tyr Cys Glu Lys Pro

```

RAW SEQUENCE LISTING

DATE: 01/22/2002

PATENT APPLICATION: US/10/030,019

TIME: 10:29:49

Input Set : A:\candidal.app.txt

Output Set: N:\CRF3\01182002\J030019.raw

```

22536          435          440          445
22538 Glu Leu Lys Asp Asp Glu Ile Asp Asp Pro Gln Ala Ile Thr Lys Leu
22539          450          455          460
22541 Ala Asn Thr Cys Trp Asn Gln His Lys Ala Arg Asn Asp Ser Val Ile
22542 465          470          475          480
22544 Ile Asp Leu Phe Thr Gly Leu Tyr Gln Ser Thr Leu Ile Cys Pro Asp
22545          485          490          495
22547 Cys Gly Lys Lys Ser Ile Thr Phe Asp Pro Phe Asn Asp Leu Thr Leu
22548          500          505          510
22550 Pro Leu Pro Ile Ser Lys Lys Trp Tyr His Thr Phe Thr Ile Val Asp
22551          515          520          525
22553 Leu Ser Asn Gln Gly Val Ile Pro Glu Arg Ile Met Lys Leu Glu Val
22554          530          535          540
22556 Glu Leu Asn Lys Thr Ser Asn Phe Asp Asp Leu Leu Ser Tyr Leu Ser
22557 545          550          555          560
22559 Asn Phe Leu Asn Val Pro Ser Thr Glu Leu Phe Ala Tyr Glu Ile Phe
22560          565          570          575
22562 Gln Asn Ala Ile Tyr Ser Asp Phe Gln Leu Asp Tyr Thr Lys Asn Lys
22563          580          585          590
22565 Phe Leu Pro Ile Ser Asp Ile Ile Arg Asp Thr Asp Asp Val Ile Val
22566          595          600          605
22568 Tyr Ile Val Pro His Asn Pro Ala Val Asp Ile Ile Val Pro Val Phe
22569          610          615          620
22571 Asn Ala Val Glu Asp Ala Asp Ser Ser Tyr Gln Met Val Asn Phe Phe
22572 625          630          635          640
22574 Gly Ile Pro Leu Phe Val Val Met Asn Lys Glu Val Asp Val Asn Ser
22575          645          650          655
22577 Phe Gly Phe Ile Arg Lys Lys Leu Leu Glu Thr Val Ser Leu Leu Ser
22578          660          665          670
22580 Lys Ile Asp Leu Val Asp Glu Tyr Glu Lys Ile Lys Arg Ser Asn Glu
22581          675          680          685
22583 Asp Tyr Val Glu Lys Val Phe Tyr Lys Lys Ser Asp Phe Pro Ala Leu
22584          690          695          700
22586 Ser Gln Pro Leu Glu Thr Ser Asp Cys Glu Lys Asn Asn Asn Thr
22587 705          710          715          720
22589 Ser Asp Asn Asp Asp Asp Glu Asp Ala Asp Asn Asp Glu Gly Tyr Asp
22590          725          730          735
22592 Ser Glu Val Ser Leu Ala Asn Pro Tyr Leu Gly Ala Asn Phe Gly Phe
22593          740          745          750
22595 Lys Ile Met Tyr Val His Asp Tyr Ser Pro Lys Leu Asn Ser Asn Leu
22596          755          760          765
22598 Arg Ser Arg Tyr Asn His Asp Gln Thr Thr Lys Phe Lys Gln Thr Glu
22599          770          775          780
22601 Arg Val Ile Asn Val Pro Thr His Lys Pro Thr Phe Ser Asp Phe Lys
22602 785          790          795          800
22604 Pro Leu Ser Asp Gln Leu Ser Glu Ser Lys Arg Asn Tyr Tyr Phe Tyr
22605          805          810          815
22607 Pro Asp Tyr Lys Lys Met Asp Asp Glu Met Asp Gln Leu Val Glu Glu
22608          820          825          830

```

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/10/030,019

DATE: 01/22/2002
 TIME: 10:29:49

Input Set : A:\candidal.app.txt

Output Set: N:\CRF3\01182002\J030019.raw

E--> 22610 Val Asn Gln Asn Leu Ala Glu Gln Xaa Glu Ala Arg Ser Ser Gly Ser
 22611 835 840 845
 22613 Glu Asn Ser Ser Arg Ala Ser Glu Glu Gln Asp Gly Phe Val Leu Ile
 22614 850 855 860
 22616 Asn Lys Glu Asp Thr Leu Lys Gln Gln Ser Thr Val Pro Ala Ala Ala
 22617 865 870 875 880
 22619 Glu Thr Val Pro Pro Pro Leu Pro Val Arg Asn Asn Thr Gly Val His
 22620 885 890 895
 22622 Ile Pro Ser Ser Asp Glu Glu Thr Glu Ser Glu Ala Asn Leu Gly Ser
 22623 900 905 910
 22625 Leu Phe Asp Ser Thr Ser Asn Leu Pro Leu Pro Pro Pro Ser Thr Tyr
 22626 915 920 925
 22628 Ser Glu Ser Thr Lys Pro Ser Asn Val Asn Ser Pro Met Glu Ser Asn
 22629 930 935 940
 22631 Phe Glu Ser Ser Ser Ala Asp Leu Asn Ser Gly Thr Thr Leu Ile Ser
 22632 945 950 955 960
 22634 Lys Asp Thr Val Leu Leu Cys Asp Trp Asp Lys Glu Ile Tyr Gln Lys
 22635 965 970 975
 22637 Cys Phe Gly Asp Lys Glu Leu Gln Ala Trp Glu Asn Ile Ser Asn Leu
 22638 980 985 990
 22640 Pro Asn Pro Glu Leu Glu Lys Asn Arg Ala His Phe Glu Arg Gln Arg
 22641 995 1000 1005
 22643 Lys Ala Lys Ile Thr Leu Ser Asp Cys Leu Lys Ser Phe Ser Thr Pro
 22644 1010 1015 1020
 22646 Glu Ile Leu Gly Glu His Asp Leu Trp Tyr Cys Pro Arg Cys Thr Glu
 22647 1025 1030 1035 1040
 22649 His Lys Arg Ala Thr Lys Thr Ile Gln Leu Trp Ser Thr Gly Asp Ile
 22650 1045 1050 1055
 22652 Leu Thr Ile His Leu Lys Arg Phe His Ser Ala Arg Ala Phe Ser Asp
 22653 1060 1065 1070
 22655 Lys Ile Asp Val Leu Val Asp Phe Pro Ile Glu Gly Leu Asp Ile Ser
 22656 1075 1080 1085
 22658 Ser Tyr Val Ala Asn Thr Asp Leu Thr Pro Glu Asp Cys Leu Tyr Asp
 22659 1090 1095 1100
 22661 Leu Ile Ala Val Asp Asn His Tyr Gly Gly Leu Gly Gly Gly His Tyr
 22662 1105 1110 1115 1120
 22664 Thr Ala Ser Val Lys Asn Phe Arg Asp Asp Lys Trp Tyr Tyr Phe Asn
 22665 1125 1130 1135
 22667 Asp Ser Arg Val Thr Glu Ile Asn Asn Pro Gln Glu Val Val Ala Asn
 22668 1140 1145 1150
 22670 Ser Ala Tyr Leu Leu Phe Tyr Arg Arg Arg Ser Ser Lys Gly Ala Gly
 22671 1155 1160 1165
 22673 Ile Leu Gly Gly Glu Asn Phe Ile Asp Leu Leu Gln Lys Gly Arg Glu
 22674 1170 1175 1180
 22676 Glu Tyr Ser Glu Ser Leu Gln Lys Lys Arg Leu Val Leu Gln Asn Val
 22677 1185 1190 1195 1200
 22679 Gly Gln Ile Val Asn Thr Tyr Ala Lys Ile Glu Gln Asp Ile Ile Asp
 22680 1205 1210 1215
 22682 Lys Glu Thr Glu Lys Gln Lys Glu Glu Gln Glu Gln Glu Gln Glu

RAW SEQUENCE LISTING

DATE: 01/22/2002

PATENT APPLICATION: US/10/030,019

TIME: 10:29:49

Input Set : A:\candidal.app.txt

Output Set: N:\CRF3\01182002\J030019.raw

```

22683          1220          1225          1230
22685 Glu Gln Glu Gln Glu Gln Glu Gln Glu Pro Val Gln Glu Pro
22686          1235          1240          1245
22688 Asp Gln Glu Gln Glu Pro Asp Gln Glu Pro Asp Gln Asp Gln Asp Gln
22689          1250          1255          1260
22691 Glu Pro Asp Gln Glu Pro Asp Gln Asp Gln Glu Gln Asn Glu Thr Ile
22692 1265          1270          1275          1280
22694 Lys Lys Ser Arg Pro Phe Asp Glu Leu Lys Pro Ser Thr Ser Glu Thr
22695          1285          1290          1295
22697 Asn Asn Gln Gln Gln Thr Thr Gln Phe Asn Phe Asp Asp Glu Asp Asn
22698          1300          1305          1310
22700 Asp Tyr Asp Tyr Glu Ala Glu Val Glu Asp Ser Asn Ile Arg Lys Gln
22701          1315          1320          1325
22703 Arg Leu Leu Ser Lys Glu Asn Asn Ser Asn Lys Leu Val His Ile Lys
22704          1330          1335          1340
22706 Ser Asn Gly Arg Gln Glu Val Thr Ser Ser Pro Val Pro Ile Glu Thr
22707 1345          1350          1355          1360
22709 Asp Gly Asp Thr Asp Val Thr Asp Ser Asn Ser Thr
22710          1365          1370
25996 <210> SEQ ID NO: 451
25997 <211> LENGTH: 5344
25998 <212> TYPE: DNA
25999 <213> ORGANISM: Candida albicans
26001 <400> SEQUENCE: 451
26002 ctctagaagt aggacatcgt atagtgtata aacactcaat aagtaatgaa gaaacacggt 60
26003 ttgttgtgca atgttagctg gcgagctcaa tattgggtct ctccgcgcgt tgcctgcctt 120
26004 gcaattctact tttttttctc ttatggaaaa cattagtact agtagtggtg gtagtagttg 180
26005 cgtttgtttg caatttgcaac gtatgtgttt tccctcatt ctcttcattg atattctgt 240
26006 ctttgttaac tgcatacaaa gggaggggaa gaagaaacaa caaaggggaa atttgaatat 300
26007 acgtcaatct ttaactocta ctaccaaggg gggggggggg gtcatacttc ttgggtgaaa 360
26008 taatgtatgg agattgaggt tattagactt ttagaaagag gtcttgggtg agtaaggcgg 420
26009 gatagacaaa ataatgcgtg tctaattggt cagagaataa tatgctttgg ggaacaatat 480
E--> 26010 aaagatgtag cgagagaaat agaattgaa gggtaaggat gattaacttt tttttttttt 540
26011 aatgcttgga gtactttgtt gttggaagaa gtattgcaga agtaatagtt taataaaaga 600
26012 aaagtataata actttagtaa tcggagaaca attgaaatca atattttgaa aatatagttt 660
26013 tatagagttaa cctgggtcga ggtgaacccg aattcaatat tggttttcgg ttgttatatg 720
26014 ctacataaac accatcatct tgaatgaaac aggataataa gaaatgagta tattaacaaa 780
26015 acaacattat gtgtgtactg ttgtattctg ttttttggtc attgccatgg taatttoata 840
26016 tttagtataa atttagtggt catcgtaagt ctctcctctc ctgggagatg ttctctctct 900
26017 cttctctctc cttgttggtt ttgtgtttaa ttgttaattg ttgattattg attgttcccc 960
26018 aattaaaatt ccgataaact tgaacataaa attgtaataa taaatttttt tttagaaaaa 1020
26019 caactcaataa aataaattta ttatatattt aaatttttaa tcggaaactc cgtcaattgg 1080
26020 attctggtttt tttttttttt atttgttcat ttatttctgt attttatttt ctttttgctt 1140
26021 cctaactcttc tttttttttt ttagtttcat aattttttgac agataatactt tgaactagtt 1200
26022 taattttttaa tcaactctgt gatttttttc oggaaatcta ataatacaca tgaccagtaa 1260
26023 ttctgccaaca ctgtgttcta caactaacga tcagagacta ccccaaaagc gagtttcaac 1320
26024 cataccacaca aataaattgc cttaacctaa tgccaatgaa gattttgcca cgggtgtgtc 1380
26025 gaattgagat gttgaactgc tatttcagag taatcaaaag aatttgggga aaaagatggc 1440
26026 taacaacaat gccataaagg atgaacgaaa gaatagtcac ggtaacatca aaaactcgga 1500

```

Item 9

RAW SEQUENCE LISTING DATE: 01/22/2002
 PATENT APPLICATION: US/10/030,019 TIME: 10:29:50

Input Set : A:\candid1.app.txt

Output Set: N:\CRF3\01182002\J030019.raw

```

26027 aaaaactacc gcaaaaccca atgaaactaa acatgagtct aatgggtgaga agttagaatt 1560
26028 caatgtttcca aaatctgttaa tgccaacaaa gcatacatcg tctgggaacc caaaagcacc 1620
26029 taccoaatgga caaatctcaa atgtacaacc aagtcacaac agtcggaac agaccacttc 1680
26030 tgggtccaaca aatgcacaatg atatacctcc aatttctcct aaaaagccacg aaaaggtcac 1740
26031 aaagtgtgaat aaactaaaaa ttggggcgctc aagatcgctc tctgcataca cagtcgtacc 1800
26032 ttcactctaca acagcttcaa ctactactaa tctcggagat cctaaactac acccaaaaag 1860
26033 acggagcagat agttttaact ttgttactcc ttccctgacg agtgaattgg catatgacga 1920
26034 tctgcctatg gtatctcaat tatcaaacaa ttcaaatctc ctaaacctac cctgcgctaa 1980
26035 tgtttctcgt tcaaatagca aaaaagggtg gttattcagt tcactttcat caaaatttag 2040
26036 atcaagctcg gcttcatcta aacaaccaca actgcattca tctgtctacac catcaaccac 2100
26037 aacgcacaaat ggtgcggcta actcgtccgc tgcctccaaa tcatcccatc actcccccaa 2160
26038 atttaactct tcaactgttg gtccagatc aaagcacaat cgagaaagctg aagattttgt 2220
26039 gtctcttacc aatactttgc ctgctgggag tggaaatacca attaaacgta aaccatcaat 2280
26040 atcgggaaat tcaattttca aagattcatt tctcgatgat gcaagttctt caccgctcat 2340
26041 ttcatttaac ctgtatgggg ggcttaagtt ttccaggaga cgttctctcg tggcatctac 2400
26042 accatacaaca caccgctcaa caccctgagt gattttgaac aaaaacccca ataggagaaa 2460
26043 agtaccattt gaagaaatat ctgaagttcg attcgtcggg gtctaccttt ctgttgataa 2520
26044 actcgacgac gatccgcaac agcagattcc ttcaagaaga cctaaanag gtaattgttt 2580
26045 aattccacag gacatcaatg caccacctcc aagaactatg tctgggaatt cgtttaatga 2640
26046 accaaataat aaagatgacg gtaaatcaca caaccattcc aaatataagt atcatgaat 2700
26047 tgcattagct gaagatgctc aacgccgagc aattattgaa gcagaaaaac atgctcaaga 2760
26048 agctcatcga aagcccaaaa agattgtcca agaagttctc gggatagatg cacatagatt 2820
26049 catatccatt aaagaaggtg gtatgtttgg taattctaac accaacggca acgacaatga 2880
26050 cgaagatgat gatgaggttg aagaagcagt tgataagaaa ttggcaaatg atgtttctgt 2940
26051 ggaatggacc ttgcatgtcc acgaacaaca ttctgaagaa gaaattgaaa gcaaaacagg 3000
26052 tgaaaagacc atttctattg aaacaatcta tacaagatgt tgcatttac gagaaatttt 3060
26053 accaatccca gcaacattga aacaattgaa aaataagaca gcaccgttgg aagtgttata 3120
26054 gatgtccaac ccaaaaccaa ctttaattga tegtttatct ttttcagatt ttattgccat 3180
26055 tacaccttat aaaccggtca tttttgataa cgtgactatg acaacagaga tgttgaaaaa 3240
26056 cttcttggga tctgttgacat ataataaaca attggaaaag ttatcgttga gaaatgttcc 3300
26057 cattgatgag ttgggatgga agtatttttg tgaatttttg gcaacaataa aaacagttaa 3360
26058 gaaattggat atatacaaac aacgtatcaa gccagatacc ccagacacaa cgaattcgtg 3420
26059 taatatgaac tgggaacttat ttattcgatc attaattttg cgtgggtgaa tagaagaatt 3480
26060 gggtatcaat ggatgtaaac tatccgatgc aatatttgaa aagtctcatc atcaaacggt 3540
26061 taagaagtca acctatcgat taggtattgc tggattgat ttgaatgtta aaaaatcaga 3600
26062 aatgttcaca tctgtgttaa ctgatggtaa ttctcaatgt gttggtgttg atattgttt 3660
26063 taatgatttg agcaagggac aattacgtcc attcattaat cttgtttaac ctggcaagct 3720
26064 caacaattta gtgttttttt cattgaattc aaccaattta ctgaaacattg aagaaactct 3780
26065 tgacttgatc aagtcattaa ttaattgtaa aacattacga ttttagatt taagttccat 3840
26066 acctaatatc ttcccgaaaa taattaccca ttggacaaa tacttgccca gatactctaa 3900
26067 tctctegaaga atacattttg atcttaatga attaacccga caagctattgt ggcatctg 3960
26068 ggggtgttta tgcaaaatgc cccaattagt tcatgtctcg tttttggta atagaaattt 4020
26069 gtcaactatg tcaagcgcta cattatacgg agcagttaaa caatccaaga cctgttttgc 4080
26070 tctgtatttg gactacgatt taatacctga tcaattatca caactcattg ccttttattt 4140
26071 gatgagaacc ttggaataca ctttgaagcc atctcatggc ggcaactattg aaagcaatcc 4200
26072 agaaaaacca gaggatttga tgtatgatgg atcgttatta ctggaacacg ctgaaaaatt 4260
26073 attagttgaa atagaaaaag gtaagaaaga ggatatcaaa ctgcaaaagg ttatatccga 4320
26074 ttcatgattg gaagaaacaa gatcgattcg taaggatatt cacaaaacca ttgatacatt 4380
26075 attcgaacaa agaaatttag gtaaaattatc atttgaaggt aaagagaatt tagttcgatt 4440

```


RAW SEQUENCE LISTING

DATE: 01/22/2002

PATENT APPLICATION: US/10/030,019

TIME: 10:29:50

Input Set : A:\candidal.app.txt

Output Set: N:\CRF3\01182002\J030019.raw

```

26076 ttgttttatta gattcgtctt tagaaaaatt ggttggtatg gttgaggaac atgccaacgg 4500
26077 attattatta acaccaacga cctccacgga cgaatctcaga agtagagcca tgcgccatc 4560
26078 ggtcaactgtt gatacaatcc atgaaagtgc aaatgagttg attactgctg gaccaatttt 4620
26079 atcaccacat gtcaatagga aagcagaaca aagctcgtat ttcccagtgt ttgccataa 4680
26080 tgataatttg acccctcatc aagttgtcgt tgagtc aaat gatgaaggta gagatgttcc 4740
26081 aatagataaa atgacaggac gaccagtttt gattcgaatca attagtcaaa ctctgtgtca 4800
26082 tgcaaaagag caagaaattg aagaagggga gcttcataaa ttgtgattct ttattcaaca 4860
26083 aaaagagaga caaaaacaac aacaacaaca acaacaacaa cagaactcac accaccagca 4920
26084 ccaacccggcc cagctgatcc aacaagaaaa ccagctgccc ctgccacaac aaggaaaata 4980
26085 tgaagattta ccgatattaa atacattacc gtcaggacca gagttgagag atgctataat 5040
26086 ggcagctaa gtagtagcaa atgttactga attaattgat cgaattaata atcatcgtgt 5100
26087 taaaatcgat gcaccatcga caaaacacca tcatgaattg aacaaaccaa attctgacaa 5160
26088 agtagttgag gatgaagttg aagtttctga taatgcctct attgattcta ctaatggtga 5220
26089 cgatttcat caacttggtg acggtataaca taatggtaat ggtacgggtg atcccatggt 5280
26090 tagtgaagtt tatgacaagt tgttaaatga tgctgaacca gtcagactga atagagatat 5340
26091 ataa 5344

```

VERIFICATION SUMMARY

DATE: 01/22/2002

PATENT APPLICATION: US/10/030,019

TIME: 10:29:51

Input Set : A:\candida1.app.txt

Output Set: N:\CRF3\01182002\J030019.raw

L:14 M:270 C: Current Application Number differs, Replaced Current Application Number
L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:21503 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:375
L:22419 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:389
L:22610 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:390
L:26010 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:451

Raw Sequence Listing Error Summary

ERROR DETECTED

SUGGESTED CORRECTION

SERIAL NUMBER: 16/030, 019

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 Wrapped Nucleics
Wrapped Aminos The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to 3; this will prevent "wrapping."
- 2 Invalid Line Length The rules require that a line not exceed 72 characters in length. This includes white spaces.
- 3 Misaligned Amino
Numbering The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.
- 4 Non-ASCII The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
- 5 Variable Length Sequence(s) _____ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
- 6 PatentIn 2.0
"bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequence(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
- 7 Skipped Sequences
(OLD RULES) Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
(i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
(a) SEQUENCE DESCRIPTION: SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped

Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.
- 8 Skipped Sequences
(NEW RULES) Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence.
<210> sequence id number
<400> sequence id number
000
- 9 Use of n's or Xaa's
(NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
- 10 Invalid <213>
Response Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence
- 11 Use of <220> Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses.
Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
- 12 PatentIn 2.0
"bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
- 13 Misuse of n n can only be used to represent a single nucleotide in a nucleic acid sequence. N is not used to represent any value not specifically a nucleotide.